

REMARKS

The Advisory Action mailed March 23, 2001 has been received and its contents carefully noted. A Request for Continued Examination is filed together herewith. By this Preliminary Amendment, independent claims 1, 5, 11, 12, 18, 23, 28, and 33 have been amended to include a limitation of another resinous substrate opposed to the resinous substrate having an uneven surface and/or a ferroelectric liquid crystal layer between these two resinous substrates. These amendments are supported by at least Example 3 of the specification.

These claims are believed to be distinguished over the prior art of record and favorable consideration in this application is requested. If the Examiner feels any further discussion would be beneficial to expedite examination of this application, it is respectfully requested that the undersigned be contacted.

Examination on the merits is requested.

Respectfully submitted,

  
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VERSION WITH MARKINGS TO SHOW CHANGES MADE

1. (Twice Amended) A semiconductor device comprising:

a first resinous substrate having an uneven surface, a second resinous substrate opposed to said first resinous substrate, and a liquid crystal layer therebetween;

a resinous layer provided on said uneven surface of said first resinous substrate and having a planarized surface;

a thin film transistor provided on said planarized surface of said resinous layer; and

an interlayer insulating layer comprising resinous material provided over said thin film transistor, said interlayer insulating layer having a leveling surface,

wherein said thin film transistor comprises:

a semiconductor layer comprising a source region, a drain region, and a channel formation region provided between said source region and said drain region;

a gate electrode provided adjacent to said channel formation region with a gate insulating film therebetween,

wherein said semiconductor layer comprises amorphous silicon.

5. (Twice Amended) A semiconductor device comprising:

a first resinous substrate having an uneven surface, a second resinous substrate opposed to said first resinous substrate, and a liquid crystal layer therebetween;

a resinous layer provided on said uneven surface of said first resinous substrate and having a planarized surface; and

a thin-film transistor provided on said planarized surface of said resinous layer;

an interlayer insulating layer comprising a resinous material provided over said thin-film transistor; and

at least one pixel electrode provided on said interlayer insulating layer,

wherein said thin-film transistor comprises:

a semiconductor layer comprising a source region, a drain region, and a channel formation region provided between said source region and said drain region; and

a gate electrode provided adjacent to said channel formation region with a gate insulating film therebetween, and

wherein said semiconductor layer comprises silicon and is obtained by crystallizing amorphous silicon.

11. (Twice Amended) A semiconductor device comprising:

a first resinous substrate having an uneven surface, a second resinous substrate opposed to said first resinous substrate, and a liquid crystal layer therebetween;

a resinous layer provided on said uneven surface of said first resinous substrate and having a planarized surface; and

a thin film transistor provided on said planarized surface of said resinous layer; and

an interlayer insulating layer comprising resinous material provided over said thin film transistor, said interlayer insulating layer having a leveling surface,

wherein said thin film transistor comprises:

a semiconductor layer comprising a source region, a drain region, and a channel formation region provided between said source region and said drain region;

a gate electrode provided adjacent to said channel formation region with a gate insulating film therebetween,

wherein said semiconductor layer comprises microcrystalline silicon.

12. (Twice Amended) A semiconductor device comprising:

a first resinous substrate having an uneven surface, a second resinous substrate opposed to said first resinous substrate, and a ferroelectric liquid crystal layer therebetween;

a resinous layer provided on said uneven surface of said first resinous substrate and having a planarized surface; and

a thin film transistor provided on said planarized surface of said resinous layer; and

an interlayer insulating layer comprising resinous material provided over said thin film transistor, said interlayer insulating layer having a leveling surface,

wherein said thin film transistor comprises:

a semiconductor layer comprising a source region, a drain region, and a channel formation region provided between said source region and said drain region;

a gate electrode provided adjacent to said channel formation region with a gate insulating film therebetween,

wherein said semiconductor layer comprises silicon and is obtained by crystallizing amorphous silicon.

18. (Twice Amended) A semiconductor device comprising:

a first resinous substrate having an uneven surface, a second resinous substrate opposed to said first resinous substrate, and a ferroelectric liquid crystal layer therebetween;

a resinous layer provided on said uneven surface of said first resinous substrate and having a planarized surface; and

a thin film transistor provided on said planarized surface of said resinous layer; and

an interlayer insulating layer comprising resinous material provided over said thin film transistor, said interlayer insulating layer having a leveling surface,

wherein said thin film transistor comprises:

a semiconductor layer comprising a source region, a drain region, and a channel formation region provided between said source region and said drain region;

a gate electrode provided adjacent to said channel formation region with a gate insulating film therebetween,

wherein said channel formation region comprises amorphous silicon.

23. (Twice Amended) A semiconductor device comprising:

a resinous substrate having an uneven surface, a substrate opposed to said resinous substrate, and a ferroelectric liquid crystal layer therebetween;

a resinous layer provided on said uneven surface of said resinous substrate and having a planarized surface; and

a thin film transistor provided on said planarized surface of said resinous layer;

an interlayer insulating layer comprising a resinous material provided over said thin-film transistor;

at least one pixel electrode provided on said interlayer insulating layer,

wherein said thin film transistor comprising:  
a semiconductor layer comprising a source region, a drain region, and  
a channel formation region provided between said source region and said drain  
region;

a gate electrode provided adjacent to said channel formation region  
with a gate insulating film therebetween,

wherein said semiconductor layer comprises amorphous silicon.

28. (Twice Amended) A semiconductor device comprising:

a first resinous substrate having an uneven surface, a second resinous  
substrate opposed to said first substrate, and a ferroelectric liquid crystal layer  
therebetween;

a resinous layer provided on said uneven surface of said first resinous  
substrate and having a planarized surface; and

a thin-film transistor provided on said planarized surface of said  
resinous layer;

an interlayer insulating layer comprising resinous material provided  
over said thin film transistor, said interlayer insulating layer having a leveling  
surface,

wherein said thin-film transistor comprises:

a semiconductor layer comprising a source region, a drain region, and  
a channel formation region provided between said source region and said drain  
region; and

a gate electrode provided adjacent to said channel formation region  
with a gate insulating film therebetween, and

wherein said channel formation region comprises microcrystalline  
silicon.

33. (Twice Amended) A semiconductor device comprising:

a resinous substrate having an uneven surface, a substrate opposed to said resinous substrate, and a ferroelectric liquid crystal layer therebetween;

a resinous layer provided on said uneven surface of said resinous substrate and having a planarized surface; and

a thin-film transistor provided on said planarized surface of said resinous layer;

an interlayer insulating layer comprising a resinous material provided over said thin-film transistor; and

at least one pixel electrode provided on said interlayer insulating layer,

wherein said thin-film transistor comprises:

a semiconductor layer comprising a source region, a drain region, and a channel formation region provided between said source region and said drain region; and

a gate electrode provided adjacent to said channel formation region with a gate insulating film therebetween, and

wherein said semiconductor layer comprises microcrystalline silicon.